

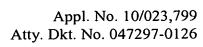
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Currently Amended) A silicon/silicon carbide composite comprised of 45 to 75 weight % of silicon and 25 to 55 weight % of silicon carbide, said silicon carbide being formed from consisting essentially of an assembly of fibers each having a thickness of 150 μm or less and a length of 0.8 to 3.5 mm, said composite having a surface on which a silicon carbide film having a thickness of 30 to 500 μm is formed.
- 2. (Currently Amended) A silicon/silicon carbide composite according to claim 1, wherein said silicon/silicon carbide composite contains carbon left without reaction therein in an amount of 0.25 % by weight or less includes a silicon carbide film having a thickness of 30 to 500 µm formed on a surface thereof.
- 3. (Currently Amended) A silicon/silicon carbide composite according to claim 1, wherein said silicon/silicon carbide composite includes a dummy wafer with a contains the silicon carbide film having a thickness of 30 to 150 µm formed on the surface thereof, said to form a dummy wafer having a total thickness of 0.5 mm to 1 mm.
- 4. (Currently Amended) A silicon/silicon carbide composite according to claim 1, wherein said silicon/silicon carbide composite includes is a semiconductor heat treatment member.
- 5. (Currently Amended) A silicon/silicon carbide composite according to claim 3 consisting essentially of 45 to 75 % by weight of silicon and 25 to 55 % by weight of silicon carbide, said silicon carbide consisting essentially of an assembly of fibers each having a thickness of 150 μm or less and a length of 0.8 to 3.5 mm, said composite having a surface on which a silicon carbide film having a thickness of 30 to 500 μm is formed wherein said silicon/silicon carbide composite includes a semiconductor heat treatment member.
- β. (Withdrawn) A process for manufacturing a silicon/silicon carbide composite comprising a first step in which cellulose fibers each having a fiber thickness of 150 μm or less are heated





at a temperature of 500°C to 1500°C in a non-oxidizing atmosphere to obtain a porous carbon body having a bulk density of 0.10 to 0.80 g/cm³;

and a second step in which said porous carbon body is silicified in an atmosphere containing silicon.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim, wherein said thickness of each cellulose fiber is within a range of 5 to 80 μm.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim or , wherein the length of each cellulose fiber is 1.5 mm or more.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 8, wherein said cellulose fiber is paper pulp.

(Withdrawn) A process of manufacturing a silicon/silicon carbide composite according to claim 8, wherein said cellulose fiber is paper pulp.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 6, wherein the bulk density of the porous carbon body produced by said first step is 0.70 g/cm³ or less.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim, in which a silicification treatment in said second step is conducted by either a reaction with fused silicon or a reaction with silicon monoxide gas.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 8, wherein a silicification treatment in said second step is conducted by either a reaction with fused silicon or a reaction with silicon monoxide gas.

4. (Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 1, wherein a silicification treatment in said second step is conducted by either a reaction with fused silicon or a reaction with silicon monoxide gas.

Appl. No. 10/023,799 Atty. Dkt. No. 047297-0126

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 6, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 8, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 12, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

18. (Currently Amended) A silicon/silicon carbide composite according to claim 2 5, wherein said silicon/silicon carbide composite includes is a dummy wafer with a the silicon carbide film having a thickness of 30 to 150 μm formed on the surface thereof, said dummy wafer having a total thickness of 0.5 to 1 mm.

(Currently Amended) A silicon/silicon carbide composite according to claim 2-5, wherein said silicon/silicon carbide composite includes is a semiconductor heat treatment member.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim, wherein the length of each cellulose fiber is 1.5 mm or more.

2/1. (Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim //, wherein said cellulose fiber is paper pulp.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim, wherein the bulk density of the porous carbon body produced by said first step is 0.70 g/cm³ or less.

Appl. No. 10/023,799 Atty. Dkt. No. 047297-0126

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 16, wherein the bulk density of the porous carbon body produced by said first step is 0.70 g/cm³ or less.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim, in which a silicification treatment in said second step is conducted by either a reaction with fused silicon or a reaction with silicon monoxide gas.

25. (Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 10, in which a silicification treatment in said second step is conducted by either a reaction with fused silicon or a reaction with silicon monoxide gas.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 7, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 10, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 12, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

(Withdrawn) A process for manufacturing a silicon/silicon carbide composite according to claim 14, wherein the porous carbon body produced by said first step is heated at a temperature of 1100°C to 2000°C in an atmosphere of halogen gas to be purified prior to the second step.

Appl. No. 10/023,799 Atty. Dkt. No. 047297-0126

62

(New) A silicon/silicon carbide composite according to claim 5, wherein said silicon/silicon carbide composite contains carbon left without reaction therein in an amount of 0.25 % by weight or less.